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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,761	03/07/2005	Antti Tolli	59643.00582	5829

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EXAMINER

HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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07/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,761

Applicant(s)

TOLLI ET AL.

Examiner

Nam Huynh

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 29-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 22-26, and 29-34 is/are rejected.
- 7) ☐ Claim(s) 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 3/16/2007. Of the previously presented claims 1-28, claims 1-26 have been amended, claims 27 and 28 have been cancelled, and claims 29-34 have been added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-18, 22-26, and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palenius et al. (US 2002/0019231) in view of Bayley et al. (US 6,944,143).

Regarding claims 1, 13-15, 18, 22, 23, 26, 31, 33, and 34, Palenius et al. discloses a method and device for improved handover procedures in mobile communications systems (title). In the scope of the invention, an access network

comprises several base stations (plurality of communication means) and a control node (RNC or network element) (page 5, paragraph 45). In a first step of the method in a handover process, the access network commands the terminal to perform measurements for a selected measurement set of cells (page 6, paragraphs 50, 55), which may include parameter settings for a compressed mode (performing compressed mode measurements at the mobile station) (page 6, paragraph 51). In response to this command, the terminal determines a measurement set that includes a defined number of cells (page 6, paragraph 53) and performs measurement of cell quality, which may include a plurality of measurement results (page 6, paragraph 56) for the cells included in the measurement set and transmits the results to the access network for further evaluation in a handover procedure (selecting a communications means of said plurality of communications means) (page 6, paragraph 55).

However, Palenius et al. does not explicitly disclose that the control node receives information associated with the base stations that is based on a plurality of parameters, including a service priority weight, ordering the base stations based on said information, and performing compressed mode measurements based on said ordering. Ganesh et al. discloses a method and system for determining a neighbor list for a CDMA sector (title). In the scope of the invention, a CDMA network planning tool (network element) receives statistics (information) such as the amount of interference, the total received power, and the amount of CDMA traffic (plurality of parameters) for a plurality of CDMA sector servers (plurality of communications means) (column 7, lines 49-64). The statistics are then used to place candidate handoff channels in a ranked

order (ordering the communications means based on said information) such as according to a percentage of traffic carried (service priority weight) (column 14, lines 40-48). The handoff channels are then compiled into a neighbor list and stored at each of the sector servers to be sent to a mobile station residing in one of the sectors of the CDMA network (column 6, lines 49-62). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the RNC of Palenius et al., to include receiving information including a service priority weight from the base stations and ordering candidates for handoff, as taught by Ganesh et al, in order to provide smooth handoffs, better quality of service, and a reduction in the potential for dropped calls.

Regarding claims 2 and 6, Palenius et al. teaches an intersystem handover between two different access networks (radio access technologies) or a handover between different cells (different communication means) within one of the access networks (page 5, paragraph 46).

Regarding claim 3, Palenius et al. discloses that the second access network uses a different frequency band (page 5, paragraph 46).

Regarding claims 4-5 and 7-8, although Palenius et al. discloses a WCDMA system for access network one and a GSM system for access network two as an example, it is inherent that the second access network can be a CDMA network since it operates on a different frequency (page 5, paragraphs 45-46).

Regarding claims 9-10, Palenius et al. discloses that cell measurement results by the terminal may include chip energy per total received channel power density or received signal code power (signal strength).

Regarding claim 11, Palenius et al. discloses the selection of suitable cells for measurement may include the identity of the cell (page 7, paragraph 62).

Regarding claim 12, Ganesh et al. teaches measuring an amount of traffic (load) (column 7, lines 60-63).

Regarding claims 16-17, Palenius et al. discloses a core network (radio resource management/server) that controls the control node (page 5, paragraph 45).

Regarding claims 24 and 25, the limitations are rejected as applied to claims 1 and 3.

Regarding claims 29, 30, and 32, the limitations are rejected as applied to claim 1. Palenius et al. further teaches that other techniques may be employed for prioritizing candidate handoff channels utilizing statistics gathered during the execution of the neighbor list determination process such as according to signal qualities relative to primary signal quality of the primary pilot channel (reordering according to signal strength) (column 15, lines 19-36).

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppel et al. (US 5,737,705).

Ruppel et al. discloses a method and apparatus for frequency assignment of a base station (title). In the scope of the invention, each base station records the identifications (IDs) of other base stations before and after a handover occurs (collecting statistics on

the handovers from a cell in a communications system to a plurality of other cells in the communication system) (column 4, lines 13-23). A channel quality parameter, $Q(f)$, is then calculated on each base transmit frequency. The $Q(f)$ values are then ordered (weighted) to indicate the frequency with the lowest $Q(f)$ value (figure 4, items 435, 440). Because the $Q(f)$ value is a function of the number of times a handoff to an adjacent channel has occurred, this aspect of the invention renders the claimed "weighting the cell load of each cell of said plurality of other cells by the percentage of handovers from said cell to respective on of said plurality of other cells". Ruppel et al. does not explicitly disclose determining a threshold based on the weighted cell loads. However, Ruppel et al. does disclose a threshold noted by "H" which indicates a number of handoffs for a particular base station (figure 4, item 450). Ruppel et al. teaches that this threshold may be functions of other variables such as traffic density of the cell and its variability based on the day of the week and may be modified within the scope of the invention (column 6, lines 15-25). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the threshold "H" to be variable based on $Q(f)$ values, or percentage of handovers, such modification is within the scope of the invention.

Allowable Subject Matter

5. Claims 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1-26 and 29-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dolan et al. (US 6,990,344)

Bayley et al. (US 6,944,143)

Taketsugu (US 5,530,910)

Bergkvist (US 5,822,696)

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

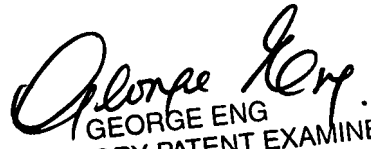
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NTH
6/12/07


GEORGE ENG
SUPERVISORY PATENT EXAMINER